



FreeSpace® 3 Series II Loudspeaker System

Product Overview

The Bose® FreeSpace® 3 Series II system is a high performance, Virtually Invisible™ system engineered for a wide range of business applications including retail, restaurant, and hospitality operations.

The product provides the following features:

- High fidelity, extended bandwidth reproduction of voice and music over a wide dispersion area
- Aesthetic styling for elegant surface and flush-mount installations
- The ceiling-mount bass module can be used with other systems to provide full, deep bass
- Versatile mix-and-match system components for all project needs:
 - Multi-purpose bass module design for simple flush, surface, or pendant mounting
 - Module design allowing for the flexibility of two or four satellites per bass module, and parallel connection of multiple bass modules
 - Choice of surface satellites with included brackets, or flush or pendant-mount satellites with integral mounting features
 - Proprietary PC/ABS enclosure to provide durability with less weight
 - When used with plenum cover, rated for use in air-handling spaces
 - All components available in black and white, with plastic and metal surfaces that can be painted with latex or oil-based paint
 - Bose® accessories available for integrated installation
- Operation with 70V, 100V or low impedance amplifier output
- Transformer tap adjustment with settings under the grille



Key Features

FreeSpace® 3 Series II System

Frequency Range: 50Hz to 16kHz (± 3 dB)

System Components:

- FreeSpace® 3 Series II Acoustimass™ module
70V/100V/6 ohm (25W, 50W, 100W, 200W taps in mono or 6 ohm; 100W in mono or stereo)
- FreeSpace® 3 Satellite Speaker (Surface-Mount with bracket)
- FreeSpace® 3F Satellite Speaker (Flush-Mount)

Sensitivity:

82dB-SPL @ 1W, 1 m (pink noise)

Maximum Acoustic Output:

93 dB-SPL average in a 45,000 ft³ room, with an RT₆₀ of 1 second, ± 3 dB

Long-Term Power Handling:

70/100V: 200W continuous

Low impedance: 100W continuous

Nominal Impedance:

2-satellite and 4-satellite, direct: 6 Ω per channel

FreeSpace® 3 Acoustimass™ Module (FS3B)

Frequency Range: 50Hz to 210Hz (± 3 dB)

Sensitivity:

76 dB @ 1W, 1 m (pink noise) per channel

79 dB-SPL @ 1W, 1 m (pink noise) mono

Maximum Acoustic Output:

96 dB-SPL @ 1 m (pink noise and IEC³ noise)/channel

102 dB-SPL @ 1 m (pink noise and IEC noise)

Long-Term Power Handling:

70/100V: 200W continuous (mono)

FreeSpace® 3 Series II Loudspeaker System

Key Features ... Continued

FreeSpace® 3 Acoustimass™ Module (FS3B)

Low Impedance: 50W per channel stereo or 100W mono, continuous

Nominal Impedance: Direct: 6 ohms

Dispersion: Omni directional

Mechanical Specifications:

Dimensions:

39.1cm outer flange diameter;
36.1cm ceiling hole diameter;
19.01cm height to top of housing

Weight: 6.36kg

Fuses/Protection: internal over-power protection

FreeSpace® 3 Series II Satellites

Frequency Range: 210Hz to 16kHz (± 3 dB)

Sensitivity: 84dB-SPL @ 1W, 1 m (pink noise)

Maximum Acoustic Output:

95 dB-SPL @ 1 m (pink noise)
92 dB-SPL @ 1 m (IEC noise)

Dispersion (-6 dB point, average, 1-4 kHz):
170° conical

Long-Term Power Handling: 12W continuous

Nominal Impedance: 6 ohms

Surface-Mount version only:

Mechanical Specifications:

Dimensions: 7.7cm x 7.7cm x 10.2cm

Weight: 0.8kg

Connectors: guillotine

Mounting Hardware Included:

Wall Mount brackets

Bracket Angles: $\pm 30^\circ$ pitch, $\pm 90^\circ$ yaw

Enclosure Construction: High-Impact Polystyrene



Flush-Mount (FS3F) version only:

Mechanical Specifications:

Dimensions: 15.7cm outer flange diameter;
12.7cm ceiling hole diameter; 12.7cm to top of housing

Weight: 0.9kg

Connectors: 2-position terminal block

Mounting Hardware Included

Integral quick-install mounting features

Additional Mounting Points: Tab for seismic chain or safety cable

Enclosure Construction: PC/ABS rated at UL94 5VA, with expanded metal grille

Optional System Accessories

- FS3B Tile Bridge required for use with tile ceilings, 6 pack
- FS3B Rough-in Pan for flush mounting in hard ceilings or walls, 6 pack
- FS3B Surface Mount Kit, white, one per box
- FS3B Surface Mount Kit, black, one per box
- FS3B Pendant Mount Kit, white, one per box
- FS3B Pendant Mount Kit, black, one per box

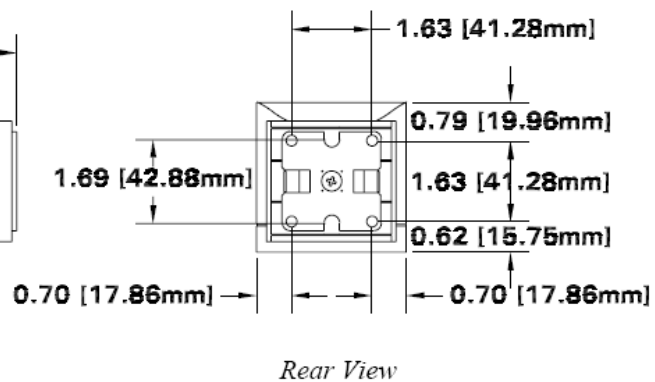
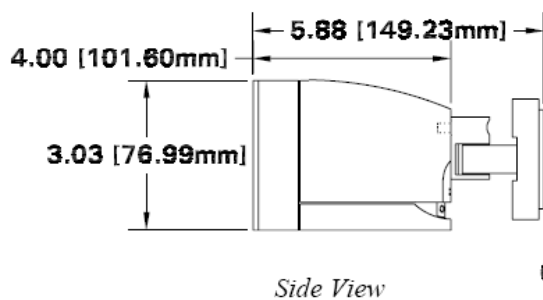
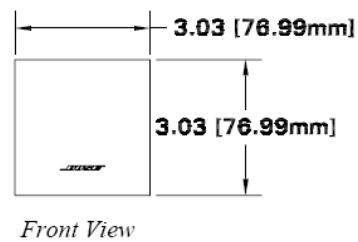
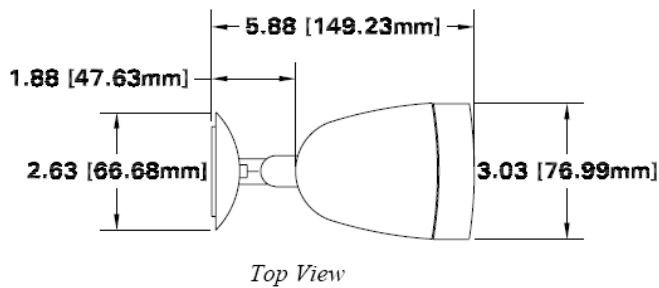
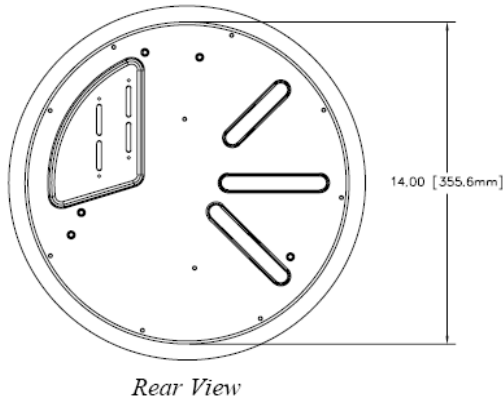
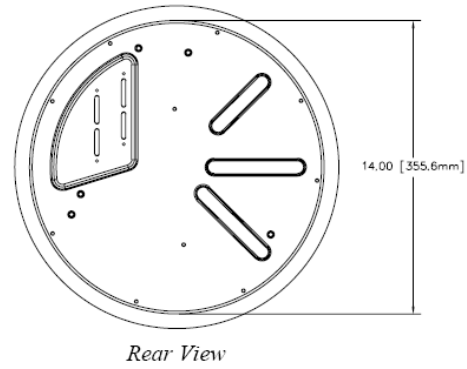
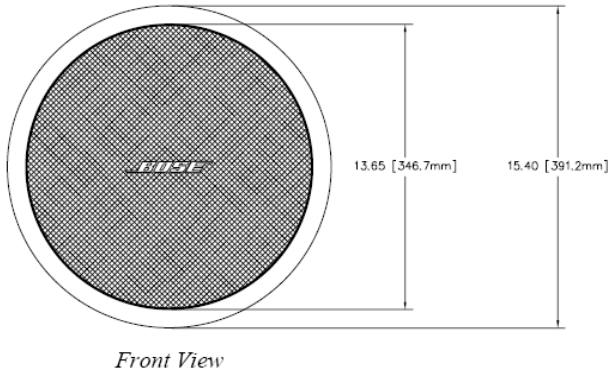
The pendant-mount kit offers a suspension cable, eye screws for cable installation, and a cosmetic cover for the speaker.

- PC-FS3B The plenum cover for the FreeSpace® 3 Flush Acoustimass™ Module. It fits over the back of the speaker to better comply with codes for air-handling spaces. (One per box)
- 8/32 Junction Box (for use with the FS3B or FS3F Rough-in Pan), 6 pack
- FS3F Tile Bridge recommended for use with tile ceilings, 6 pack
- FS3F Rough-in Pan for flush mounting in hard ceilings or walls, 6 pack
- FS3F Cosmetic Covers for use when pendant mounting, two per box, white
- FS3F Cosmetic Covers for use when pendant mounting, two per box, black
- PC-FS3F the plenum cover for the FreeSpace® 3 flush satellite fits over the back of the speaker to comply with codes for air-handling spaces (6 pack)

FreeSpace[®] 3 Series II Loudspeaker System

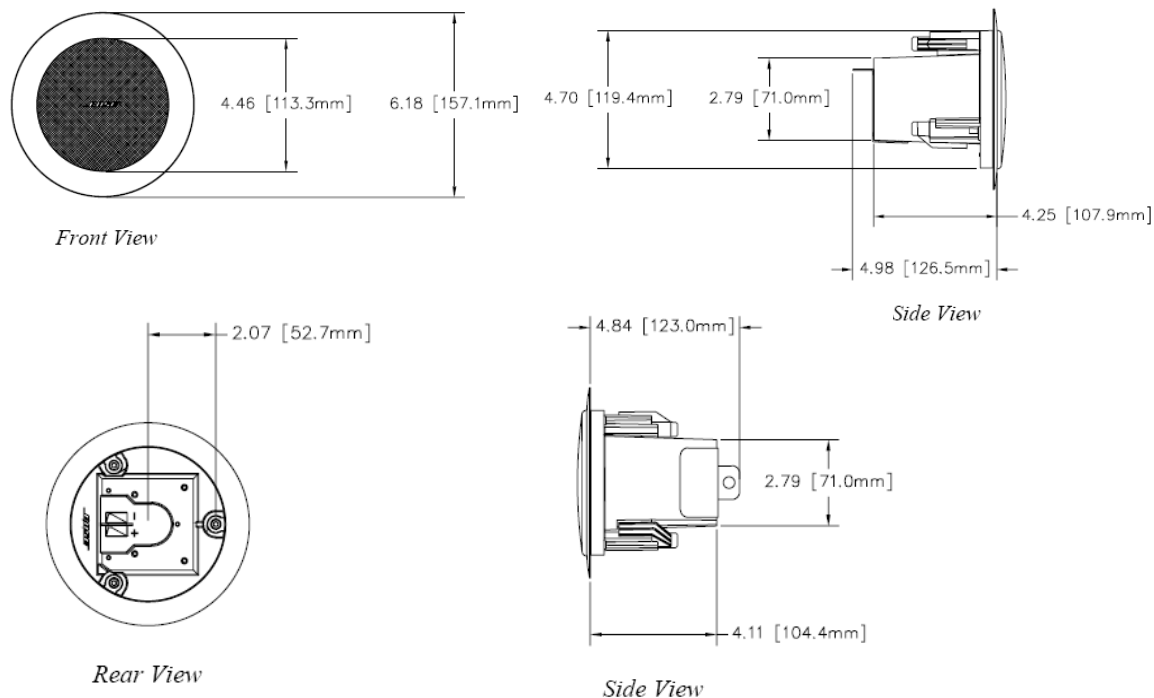
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Mechanical Diagrams:



TECHNICAL DATA SHEET

FreeSpace® 3 Series II Loudspeaker System



Installation

Product installation instructions are included with the loudspeakers.

A full complement of accessories, for ease and versatility of installation, is available from Bose®.

For mounting in a tile ceiling, a tile bridge is required for the Acoustimass™ module and is available for the FS3F Satellite Speaker. Rough-in pans are available for Flush-Mounting in hard ceilings or walls (and required for installing the module that way). The Bose® 8/32 junction box may be used with the rough-in pan or Tile Bridge for pre-wiring that meets local building codes.

For pendant-mounting in an open ceiling, the FS3B Pendant-Mount Kit offers a suspension cable, eye bolts for cable installation, and a cosmetic cover for the module. For the FS3F Satellite Speakers, an optional cosmetic cover can be used in conjunction with solid conduit attached to the satellite rear cover.

An optional surface-mount kit for the module provides a wall or ceiling mount bracket and cosmetic cover that converts the Series II module into a Surface-Mount speaker. The Surface-Mount satellite speakers include mounting brackets that allow for easy installation and aiming at $\pm 30^\circ$ pitch and $\pm 90^\circ$ yaw.

The FS3F and FS3B plenum cover allow each loudspeaker to meet fire codes for installing in air-handling spaces.

Note: This product is equipped with a protection circuit that reduces the volume to a very low level when over-powered. In the event that the protection circuit is activated, turn off the signal source for 30 seconds for full recovery.

FreeSpace® 3 Series II Loudspeaker System

Engineers' and Architects' Specifications

The loudspeaker system shall be a 200W ported loudspeaker system that includes one Acoustimass™ module and two or four satellite speakers. It shall be capable of producing 93dB SPL average in a 45,000 ft³ room with an RT₆₀ of 1 second in a range of 50 Hz to 16 kHz ±3dB).

The Module shall have one 13.3cm dual Voice Coil Low Frequency Driver. The module shall have an input impedance of 6Ω for direct connection to un-equalized low impedance amplifier sources. The system shall be configured for use with either a 70/100V input or a low impedance input. The transformer shall offer multiple taps of 25W, 50W, 100W, and 200W.

Each satellite speaker shall have one 6.3cm full-range driver. The nominal average dispersion shall be 170° at -6dB. The input connectors shall consist of multi-position screw-type barriers on the Acoustimass™ module, a two position guillotine connector on the Flush-Mount satellite, and a two position screw-type barrier on the surface-mount satellite. Wire jumpers for transformer settings shall be provided. Removable covers shall shield all bass module input and jumper connections.

The Acoustimass™ module shall have dimensions of 39.1cm outer flange diameter; 36.1cm ceiling hole diameter; and 19.0cm height to top of housing. It shall weigh 6.36kg. Each surface-mount satellite shall measure 7.7cm H x 7.7cm W x 10.2cm D and shall weigh 0.8kg. Each Flush-Mount satellite speaker shall measure 15.7cm outer flange diameter; 12.7cm ceiling hole diameter; and 12.7cm to top of housing. It shall weigh 0.9kg.

The loudspeaker module and flush-mount satellite enclosures shall be composed of PC/ABS with an expanded metal grille and shall meet plenum ratings when used with a plenum cover. The surface-mount satellite shall have a cloth grille and black or white polymer finish.

The loudspeaker shall be the Bose® FreeSpace® 3 Series II Loudspeaker System.

Loudspeaker Configuration

The FreeSpace® 3 Loudspeaker system consists of a Flush-Mount Acoustimass™ module plus two to four satellite speakers of flush or surface-mount design.

The module may also be mounted on the surface of a wall or ceiling using the optional surface-mount kit. The module alone may be used for bass augmentation with other Bose® speakers, such as the FreeSpace® Model 16, Model 32, Model 32SE or FreeSpace® 6 Loudspeakers.

With loudspeakers other than the FreeSpace® 3 satellites, the module must have a separate amplifier channel and must not connect to the other speakers.

Detailed installation and setup instructions are provided in the *Bose® FreeSpace® 3 Series II Loudspeaker System Installation Guide* found on the website <http://Pro.Bose.com>.

Safety and Regulatory Compliance

The Bose® FreeSpace® 3 Series II Loudspeakers have passed extensive testing and comply with the following specifications and uses:

UL1480 listed:

- General-Purpose Use, UL Category UEAY, File Number S 5591.
- Air-handling spaces (ceiling plenums), FS3 module and Flush-Mount satellite:
 - UL-2043 When used with the PCFS3F and PC- FS3B Plenum Cover accessories
 - NFPA-70 National Electric Code 2002, Article 300-22(c)
 - NFPA-90-A-1996 Installation of Air Conditioning and Ventilation Systems, Section 2-3.10.1(a), Exception 3

EMC Directive 89/336/EEC and Article 10 (1) of the directive, EN50081-1, and EN50082-1, as signified by the CE mark.

Warranty Information

The Bose® FreeSpace® 3 Series II Loudspeaker System is covered by a five-year transferable limited warranty.